WHAT IS CLAIMED IS:

1. A resin composition comprising:

(A) an alkali-soluble resin;

(B) an infrared absorbing agent; and

(C) a thiol compound,

wherein a solubility of the resin composition in an alkaline aqueous solution is changed by exposure with an infrared laser beam.

2. A resin composition comprising:

(A) an alkali-soluble resin;

(B) an infrared absorbing agent;

(C) a thiol compound; and

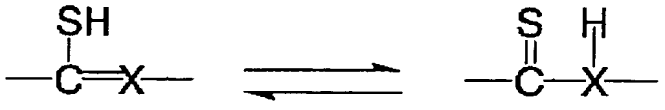
(D) a compound that are thermally decomposable and substantially reduces a solubility of the alkali-soluble resin in an undecomposed state

wherein a solubility of the resin composition in an alkaline aqueous solution is changed by exposure with an infrared laser beam.

3. A resin composition according to claim 2, wherein the compound that are thermally decomposable and substantially reduces a solubility of the alkali-soluble resin in an undecomposed state is a compound selected from a group consisting of onium

salts, o-quinonediazide compounds, and alkyl sulfonate esters.

4. A resin composition according to claim 1, wherein the thiol compound can tautomerize as shown by the following general formula (1):



General formula (1)

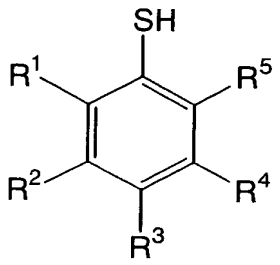
wherein X represents a trivalent atom or atomic group.

5. A resin composition according to claim 4, wherein X in general formula (1) is a nitrogen atom or a methine group.

6. A resin composition according to claim 1, wherein the thiol compound is an aliphatic hydrocarbon having an SH group on a side chain or at a terminal.

7. A resin composition according to claim 1, wherein the thiol compound is a cyclic hydrocarbon substituted by an SH group or a heterocycle substituted by an SH group.

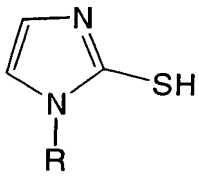
8. A resin composition according to claim 7, wherein the cyclic hydrocarbon substituted by an SH group is a compound represented by the following general formula:



General formula

wherein in general formula, R^1 through R^5 each independently represent a hydrogen atom, an alkyl group, a halogen atom, an alkoxy group, or a mercapto group.

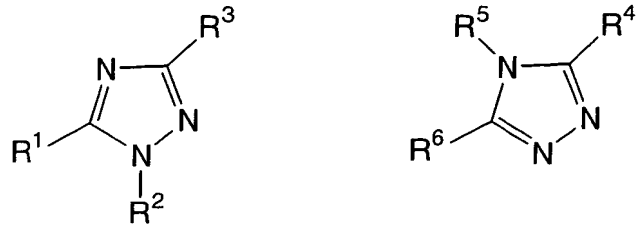
9. A resin composition according to claim 7, wherein the heterocycle substituted by an SH group has two nitrogen atoms in the heterocycle and is represented by the following general formula:



General formula

wherein in general formula, R represents a hydrogen atom or an alkyl group.

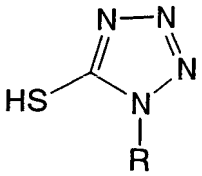
10. A resin composition according to claim 7, wherein the heterocycle substituted by an SH group has three nitrogen atoms in the heterocycle and is represented by at least one of the following general formulae:



General formulae

wherein in general formulae, R^1 through R^6 each independently represent a hydrogen atom, an alkyl group, an aryl group, an amino group, or a mercapto group, at least one of R^1 and R^3 represents a mercapto group, and at least one of R^4 and R^6 represents a mercapto group.

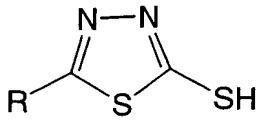
11. A resin composition according to claim 7, wherein the heterocycle substituted by an SH group has four nitrogen atoms in the heterocycle and is represented by the following general formula:



General formula

wherein in general formula, R represent an alkyl group or an aryl group, and when R represents an aryl group, R may represent an aryl group that has a substituent selected from the group consisting of a hydroxyl group, a carbamoyl group, and a carboxyl group.

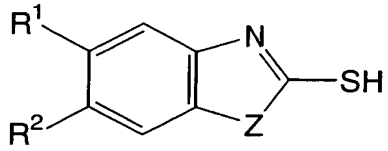
12. A resin composition according to claim 7, wherein the heterocycle substituted by an SH group is a compound represented by the following general formula:



General formula

wherein in general formula, R represents an alkyl group, an amino group, an alkylthio group, or a mercapto group.

13. A resin composition according to claim 7, wherein the heterocycle substituted by an SH group is a compound represented by the following general formula:

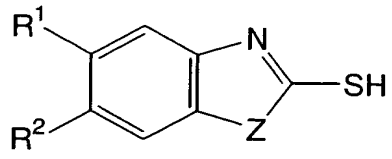


General formula

wherein in general formula, R^1 and R^2 each independently represent a hydrogen atom, an alkyl group, an alkoxy group, a halogen atom, a carbamoyl group, a nitro group, or a sulfonate group, and Z represents –NH-, an oxygen atom, or a sulfur atom.

14. A resin composition according to claim 7, wherein the heterocycle substituted by an SH group is a compound represented

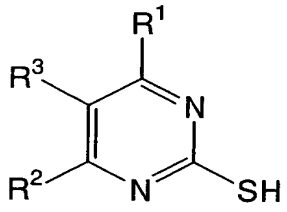
by the following general formula:



General formula

wherein in general formula, R^1 and R^2 each independently represent a hydrogen atom, an alkyl group, an alkoxy group, a halogen atom, a carbamoyl group, a nitro group, or a sulfonate group, and Z represents an oxygen atom or a sulfur atom.

15. A resin composition according to claim 7, wherein the heterocycle substituted by an SH group is a compound represented by the following formula:



General formula

wherein in general formula, R^1 through R^3 each independently represent a hydrogen atom, an alkyl group, a haloalkyl group, a hydroxyl group, an amino group, a nitroso group, or a mercapto group.

16. A resin composition according to claim 1, wherein the thiol compound is a compound obtained by substituting an SH

group for a substituent on a cyclic hydrocarbon.

17. A resin composition according to claim 1, wherein the thiol compound is contained in an amount of 0.2 to 20% by mass based on a total solids content of the resin composition.

18. A positive-type image recording layer containing a resin composition comprising:

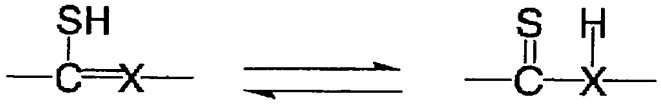
(A) an alkali-soluble resin;

(B) an infrared absorbing agent; and

(C) a thiol compound,

wherein a solubility of the resin composition in an alkaline aqueous solution is changed by exposure with an infrared laser beam.

19. A positive-type image recording layer according to claim 18, wherein the thiol compound can tautomerize as shown by the following general formula (1):



General formula (1)

wherein X represents a trivalent atom or atomic group.

20. A negative-type image recording layer containing a resin composition comprising:

(A) an alkali-soluble resin;

(B) an infrared absorbing agent; and

(C) a thiol compound,

wherein a solubility of the resin composition in an alkaline aqueous solution is changed by exposure with an infrared laser beam.